Finnish Maritime Administration

BULLETIN No. 16/27.11.2002

THE EQUIVALENCE BETWEEN THE FINNISH-SWEDISH ICE CLASSES AND THE ICE CLASSES OF CLASSIFICATION SOCIETIES

The Finnish Maritime Administration has approved the enclosed list of ice class notations of recognized classification societies and the equivalent Finnish-Swedish ice classes in accordance with section 12.3 of the Act on Fairway Dues (708/2002).

The list enters into force on 1 January 2003.

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THE EQUIVALENCE BETWEEN THE FINNISH-SWEDISH ICE CLASSES AND THE ICE CLASSES OF CLASSIFICATION SOCIETIES

1 General

1.1 For an ice class to be granted, the ship's draught on the load line must be within the limits of the ship's maximum (LWL) and minimum (BWL) ice class draughts and in accordance with the ship's Tonnage Certificate.

1.2 The maximum and minimum ice class draughts fore and aft and the minimum engine output (P_B) corresponding to the ice class shall be stated in the classification certificate.

2 Equivalence of ice classes

2.1 When the ice class of a ship is determined on the basis of the ice class notation of a classification society, the ship may be granted the Finnish-Swedish ice class IA Super, IA, IB or IC

- according to Appendix 1, if the keel of the ship is laid or is at a similar stage of construction on or after 1 September 2003, or
- according to Appendix 2 for the ship, if the keel of the ship has been laid or has been at a similar stage of construction before 1 September 2003.

2.2 To be entitled to retain ice class IA Super or IA a ship, the keel of which has been laid or which has been at a similar stage of construction before 1 September 2003, shall comply with the requirements[1] in section 3.2.2 of the Finnish-Swedish Ice Class Rules (20.9.2002 No. 5/30/2002) at the following dates:

- 1 January 2005 or
- 1 January in the year when 20 years has elapsed since the year the ship was delivered, whichever occurs the latest.

3 Equivalence of other ice classes

3.1 If a ship has an ice class not mentioned in Appendix 1 or 2 of one of the classification societies mentioned in section 2, or an ice class of another classification society, not mentioned in section 2 above, the equivalence of the ship's ice class is subject to approval of the Finnish Maritime Administration. For approval of equivalence, the following information shall be sent to the Administration:

(1) A copy of the relevant ice class rules of the classification society;
(2) The dimensions of the ship and the ship parameters given in section 3.2.1 of the Finnish-Swedish Ice Class Rules (20.9.2002 No. 5/30/2002);
(3) A copy of the construction drawing and steel drawing of the ice belt;
(4) A copy of the lines drawing of the bow;
(5) A copy of the ship's Classification Certificate;
(6) A copy of the ship's Load Line Certificate;
(7) A copy of the ship's Tonnage Certificate.

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[1] See Finnish Maritime Administration Regulations on the structural design and engine output required of ships for navigation in ice, Finnish Maritime Administration Bulletin No. 13/1.10.2002.

APPENDIX 1. Ships the keels of which are laid or which are at a similar stage of construction on or after 1 September 2003

1.1 American Bureau of Shipping

	Ice class notation	Equivalent Finnish-Swedish ice class
1.1.1	I AA I A I B I C	IA Super IA IB IC

1.2 Bureau Veritas

	Ice class notation	Equivalent Finnish-Swedish ice class
1.2.1	IA SUPER IA IB IC	IA Super IA IB IC

1.3 Det Norske Veritas

	Ice class notation	Equivalent Finnish-Swedish ice class
1.3.1	ICE-1A* ICE-IA ICE-IB ICE-IC	IA Super IA IB IC

1.4 Germanischer Lloyd

	Ice class notation	Equivalent Finnish-Swedish ice class
1.4.1	E4 E3 E2 E1	IA Super IA IB IC

1.5 Lloyd's Register of Shipping

	Ice class notation	Equivalent Finnish-Swedish ice class
1.5.1	1AS 1) 1A 1) 1B 1C	IA Super IA IB IC

1) If the vessel has a longitudinal framing system, the longitudinal frame section modulus and shear area are to be defined according to the Finnish-Swedish Ice Class Rules (20.9.2002 No. 5/30/2002)[2], for ships built to ice class 1AS or 1A of Lloyd's Register of Shipping. Otherwise, for such a ship, ice class 1AS of Lloyd's Register of Shipping is equivalent to the Finnish-Swedish ice class IA, and ice class 1A of Lloyd's Register of Shipping is equivalent to the Finnish-Swedish ice class IB.

1.6 Nippon Kaiji Kyokai (Class NK)

	Ice class notation	Equivalent Finnish-Swedish ice class
1.6.1	I*A Super* I*A* I*B* I*C*	IA Super IA IB IC

1.7 Registro Italiano Navale

	Ice class notation	Equivalent Finnish-Swedish ice class
1.7.1	IAS IA IB IC	IA Super IA IB IC

[2] See Finnish Maritime Administration Regulations on the structural design and engine output required of ships for navigation in ice, Finnish Maritime Administration Bulletin No. 13/1.10.2002.

1.8 Russian Maritime Register of Shipping

	Ice class notation	Equivalent Finnish-Swedish ice class
1.8.1	ULA 1)	IA Super
1.8.2	UL 1)	IA Super
	L1 1)	IA
	L2 1)	IB
	L3 1)	IC
1.8.3	LU7 1)	IA Super
1.8.4	LU5 1)	IA Super
	LU4 1)	IA
	LU3 1)	IB

1) The equivalence may be granted provided that the engine power of the ship complies with the provisions given in chapter 3 of the Finnish-Swedish Ice Class Rules (20.9.2002 No. 5/30/2002)[3].

[3] See Finnish Maritime Administration Regulations on the structural design and engine output required of ships for navigation in ice, Finnish Maritime Administration Bulletin No. 13/1.10.2002.

APPENDIX 2. Ships the keels of which have been laid or which have been at a similar stage of construction before 1 September 2003

2.1 American Bureau of Shipping

	Class notation	Equivalent Finnish-Swedish ice class
2.1.1	A1 (E)	II
2.1.2	Ships the classification drawings of which have been approved before 1st May 1971: A1 (E) "Ice Strengthening" Class A A1 (E) "Ice Strengthening" Class B A1 (E) "Ice Strengthening" Class C A1 (E) "Ice Strengthening"	 IA IB IC IC
2.1.3	Ships the classification drawings of which have been approved on 1st May 1971 or thereafter Notations mentioned in 2.1.2 A1 (E) "Ice strengthening" Class AA	 II II
2.1.4	A1 (E) "Ice strengthening" Class IAA A1 (E) "Ice strengthening" Class IA A1 (E) "Ice strengthening" Class IB A1 (E) "Ice strengthening" Class IC	IA Super IA IB IC

2.2 Bureau Veritas

	Class notation	Equivalent Finnish-Swedish ice class
2.2.1	I 3/3 E	II
2.2.2	Ships the classification drawings of which have been approved before 1st May 1971: I 3/3 E glace I-Super I 3/3 E glace I I 3/3 E glace II I 3/3 E glace III	 IA Super IA IB IC
2.2.3	Ships the classification drawings of which have been approved on 1st May 1971 or thereafter Notations mentioned in 2.2.2 I 3/3 E Ice Class IA Super I 3/3 E Ice Class IA I 3/3 E Ice Class IB I 3/3 E Ice Class IC	 II IA Super IA IB IC

2.3 Det Norske Veritas

	Class notation	Equivalent Finnish-Swedish ice class
2.3.1	1A1	II
2.3.2	Ships the classification drawings of which have been approved before 1st May 1971: 1A1 Ice A 1A1 Ice B 1A1 Ice C	 IA IB IC
2.3.3	Ships the classification drawings of which have been approved on 1st May 1971 or thereafter Notations mentioned in 2.4.2 1A1 Ice 1A* 1A1 Ice 1A 1A1 Ice 1B 1A1 Ice 1C	 II IA Super IA IB IC

2.4 Germanischer Lloyd

	Class notation	Equivalent Finnish-Swedish ice class
2.4.1	100 A5	II
2.4.2	100 A5 E4 100 A5 E3 100 A5 E2 100 A5 E1	IA Super IA IB IC
2.4.3	100 A5 EO4, EO3, EO2, EO1	II
2.4.4	100 A5 E, KE, ME	II
2.4.5	100 A5 K or M	III

The limitations K or M together with the notations in 2.4.2 do not affect the ice class.

2.5 Lloyd's Register of Shipping

	Class notation	Equivalent Finnish-Swedish ice class
2.5.1	100 A1	II
2.5.2	Ships the classification drawings of which have been approved before 1st May 1971: 100 A1 Ice Class 1* 100 A1 Ice Class 1 100 A1 Ice Class 2 100 A1 Ice Class 3 100 A1 "Strengthened for Navigation in Ice"	 IA Super IA IB IC IC
2.5.3	Ships the classification drawings of which have been approved on 1st May 1971 or thereafter Notations mentioned in 2.5.2 100 A1 Ice Class 1AS 100 A1 Ice Class 1A 100 A1 Ice Class 1B 100 A1 Ice Class 1C 100 A1 Ice Class 1D	 II IA Super IA IB IC II

2.6 Nippon Kaiji Kyokai

	Class notation	Equivalent Finnish-Swedish ice class
2.6.1	NS	II
2.6.2	NS Class IA Super Ice Strengthening NS Class IA Ice Strengthening NS Class IB Ice Strengthening NS Class IC Ice Strengthening	IA Super IA IB IC
2.6.3	NS Class AA, A, B, C Ice Strengthening	II

2.7 Registro Italiano Navale

	Class notation	Equivalent Finnish-Swedish ice class
2.7.1	100A – 1.1	II
2.7.2	100A – 1.1 RG1* 100A – 1.1 RG1 100A – 1.1 RG2 100A – 1.1 RG3	IA Super IA IB IC
2.7.3	As in 1.7.1	As in 1.7.1

2.8 Russian Register of Shipping

	Class notation	Equivalent Finnish-Swedish ice class
2.8.1	KM	II
2.8.2	KM ULA, UL 1) KM L1 1) KM L2 1) KM L3, L 1) KM L4 1)	IA Super IA IB IC II

1) For a ship classed with the Russian Register of Shipping, the deadweight (dwt) of which is less than 15,000 tons, the hull surveyor shall check that the engine output of the ship is as follows:

IA Super: $P \geq 0.57 \times Dwt + 600$ [hp]; $\geq$ 3,500 hp
IA $P \geq 0.50 \times Dwt + 400$ [hp]; $\geq$ 900 hp
IB $P \geq 0.43 \times Dwt + 200$ [hp]; $\geq$ 900 hp
IC $P \geq 0.35 \times Dwt$ [hp]; $\geq$ 900 hp

IA Super: $P = 0.419 \times dwt + 441$ [kW]; $\geq$ 2,574 kW
IA $P = 0.368 \times dwt + 294$ [kW]; $\geq$ 662 kW
IB $P = 0.316 \times dwt + 147$ [kW]; $\geq$ 662 kW
IC $P = 0.257 \times dwt$ [kW]; $\geq$ 662 kW